

## **STATEMENT OF LEGAL AND FACTUAL BASIS**

Custom Wood Products, LLC – Aerial Way Plant  
Roanoke, Virginia

Title V Permit No. VA-21390

Permit Date: September 10, 2002

*Modified December 9, 2002 & January 17, 2006*

Registration No. 21390  
AIRS ID No. 51-770-0254

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Custom Wood Products, LLC has applied for a Title V Operating Permit for its custom wood kitchen cabinet manufacturing plant located at 3304 Aerial Way Drive in Roanoke, Virginia. The Department has reviewed the application and has prepared a Title V Operating Permit for Custom Wood Products, LLC – Aerial Way Plant. A modification to the permit was requested on July 22, 2002 and finalized on December 9, 2002. A further modification was requested on October 18, 2005.

## **FACILITY INFORMATION**

### **Permittee**

Custom Wood Products, LLC  
Plant  
3304 Aerial Way Drive  
Roanoke, VA 24018

### **Facility**

Custom Wood Products, LLC – Aerial Way  
3304 Aerial Way Drive  
Roanoke, VA 24018

## **SOURCE DESCRIPTION**

SIC Code 2434, wood kitchen cabinets.

Custom Wood Products, LLC (CWP) owns and operates a wood cabinet manufacturing and coating facility at 3304 Aerial Way Drive in Roanoke, Virginia. CWP produces only custom cabinets that are designed to meet customer specifications.

The Aerial Way plant currently operates with an annual production rate of approximately 27,000 cabinets per year, while working a single 8-hour shift. The current daily production rate is approximately 120 cabinets per shift. The plant receives pre-cut lumber and stores these wood pieces on-site for custom processing. Select pieces are then cut, shaped and assembled to meet customer specifications in the building, door, and/or framing woodworking departments.

Each piece of woodworking equipment is either vented to an indoor dust collector or vented to the Aerial Way plant's main baghouse to control wood dust emissions.

Once the various cabinet components have been cut, shaped and assembled to specifications, they are sent to the coating booths to apply tints, stains, basecoats, and/or topcoats. Coatings are applied using a combination of high volume low pressure (HVLP) spray guns that operate at air pressures below 10 psi and air-assisted airless spray guns. The Aerial Way plant currently has eleven (11) coating and application booths. Ten of the eleven coating booths currently contain filters that collect particulate matter emissions generated from the coating overspray.

In addition to particulate matter emissions from coating operations, the Aerial Way Plant emits volatile organic compound (VOC) and Hazardous Air Pollutant (HAP) emissions, for which the plant is considered a major source. Individual HAPs include Toluene, Xylene, Methyl Isobutyl Ketone (MIK), Methanol, Methyl Ethyl Ketone (MEK), Ethylbenzene, Glycol Ethers, Formaldehyde, Naphthalene, Dimethyl Phthalate, and Hexane.

The Maximum Achievable Control Technology (MACT) standard for wood furniture plants (40 CFR 63 Subpart JJ) applies to the finishing operations portion of the facility as an existing source before the December 7, 1995 MACT applicability date. The plant's primary method for meeting the federal standard is to normally use only compliant coatings, where required. This facility is not a PSD definition major source due to VOC PTE emissions remaining below 250 tons/yr. It is located in an area currently regarded as in attainment for all pollutants.

The federal operating permit issued September 10, 2002, was modified on December 9, 2002, to reflect new NSR permit requirements from a minor modification to two spray booths. On October 18, 2005, the facility requested another minor modification to change the MACT JJ reporting date to coincide with the Title V reporting date. This minor change is intended to reduce confusion in the reporting requirements.

## **COMPLIANCE STATUS**

The facility is inspected at least once per year. As part of the compliance plan submitted with the Title V application in response to a consent order and agreement, CWP has agreed to convert some of their existing HVLP spray systems to air-assisted airless spray systems because of the improved transfer efficiency. As part of the implementation of the Supplemental Environmental Program for Pollution Prevention techniques, CWP has also replaced an existing unfiltered blow-off booth with a new self-contained filtered unit and replaced the existing plant compressor with a new, more energy efficient model.

The wood furniture manufacturing MACT standard is applicable to this plant, and is subject to MACT requirements for existing sources that emitted less than 50 TPY of HAPs in 1996. The mandatory compliance date for such existing sources was December 7, 1998, with the facility found to be in compliance with the Subpart's requirements. The Aerial Way facility is subject to the emission limitation requirements found in Table 3 of the Subpart, with compliance methods found in §63.804. Since CWP does not use a control device for HAP emissions from finishing operations at the plant, they must achieve a weighted average VHAP content across all coatings of less than or equal to 1 kg HAP/kg solids as applied. The Aerial Way plant must also limit the VHAP content of contact adhesives to 1 kg VHAP/KG solids and must limit the HAP content in strippable spray booth coatings to 0.8 kg HAP/KG solids.

Since January 1999, CWP has maintained these averages. During the 2000 calendar year, the average VHAP content of all the coatings was equal to 0.66 lb HAP/ lb solids, which equates to 0.66 kg HAP/kg solids. The facility has also been in compliance with the work practice standards, compliance procedures, monitoring, recordkeeping and reporting requirements as applicable in §63.804 through §63.807.

## EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

### I. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Process A – Woodworking Equipment</b>							
ES-DD	SNBH1	Woodworking Operations – Door Department	120 cabinets/shift	Baghouse	CDBH1	PM, PM10	N/A
ES-FD	SNBH1	Woodworking Operations – Framing Department	120 cabinets/shift	Baghouse	CDBH1	PM, PM10	N/A
ES-BD	SNBH1	Woodworking Operations – Building Department	120 cabinets/shift	Baghouse	CDBH1	PM, PM10	N/A

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Process B – Finishing Equipment</b>							
ES220A	SN220A	Devilbiss 7' 8" x 12' Wipe/Stain Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD220A	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES221B	SN221B	Custom Built 8' x 12' Blowoff/Tint Booth.	120 cabinets per shift	Unfiltered.	TBD	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES222C	SN2221	Custom Built 7' 6" x 16' Basecoat/Stain Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD222C	PM, PM10	NSR August 28, 2002 & 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES223	SN223	Binks 9' x 15' Basecoat Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD223	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES225	SN225	Greenline 7' 6" x 20' Topcoat/Basecoat Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD225	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
<b>Process B – Finishing Equipment</b>							
ES227	SN227	Devilbiss 7' 6" x 12' Topcoat Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD227	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES228	SN228	Devilbiss 7' 6" x 12' Topcoat Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD228	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES229	SN229	Devilbiss 7' 6" x 12' Topcoat Booth.	120 cabinets per shift	Spraybooth overspray dry filters	CD229	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES230	SN230	Devilbiss 7' 6" x 12' Topcoat/Basecoat Booth	120 cabinets per shift	Spraybooth overspray dry filters	CD230	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES231	SN231	Devilbiss 7' 6" x 12' Topcoat/Basecoat Booth	120 cabinets per shift	Spraybooth overspray dry filters	CD231	PM, PM10	N/A – 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.
ES232	SN232	Custom Built 7' 6" x 10' Touch-Up Booth	120 cabinets per shift	Spraybooth overspray dry filters	CD232	PM, PM10	NSR August 28, 2002 & 40 CFR 63 Subpart JJ - Wood Furniture MACT standard applies.

\*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

## EMISSIONS INVENTORY

Emissions are summarized in the following tables.

### 2000 Actual Emissions – Criteria Pollutants

	Criteria Pollutant Emission in Tons/Year				
Emission Unit	PM-10	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Woodworking Operations	5.1				
Finishing/Coating Operations	5.86				61.15
Natural Gas Sources *	0.18	0.015	2.38	2.0	0.13
<b>Total</b>	<b>11.15</b>	<b>0.015</b>	<b>2.38</b>	<b>2.0</b>	<b>61.28</b>

Actual emissions for 2000 are based upon maximum coating usage for 1 shift per day, which equates to approximately 120 cabinets per day. Spraybooth emissions are based upon a conservative 30% transfer efficiency, with the remaining 70% routed to 95% efficient filters in the controlled booths, or uncontrolled as in the case of unfiltered booths. Natural Gas sources are included here for informational purposes only; they are otherwise insignificant sources.

### 2000 Actual Emissions - Hazardous Air Pollutants (HAPs)

Pollutant	Hazardous Air Pollutant Emission in Tons/Year
Toluene	9.71
Xylene	9.25
Methyl Isobutyl Ketone (MIK)	0.69
Methanol	0.47
Methyl Ethyl Ketone (MEK)	1.47
Ethylbenzene	1.00
Glycol Ethers	0.04
Formaldehyde	0.09
Napthalene	0.02
Dimethyl Phthalate	0.32
Hexane	0.04
<b>TOTAL HAPs</b>	<b>23.10</b>

## EMISSION UNIT APPLICABLE REQUIREMENTS – Woodworking

This group includes all of the plant's wood working processes and equipment, namely equipment in the door department, framing department and building department. All wood dust emission sources are controlled by the Aerial Way baghouse. Some sanding and planing equipment stations utilize Delta indoor vacuum-type dust collectors for indoor particulate control.

The above-referenced woodworking equipment is a mix of both "existing" and "new or modified" under Virginia Regulations, that is, it is equipment constructed or installed both before and after March 17, 1972. With this being the case, CWP's woodworking equipment is subject to existing stationary source standards contained in Virginia Regulations 9 VAC 5 Chapter 40 – Article 17: Emission Standards for Woodworking Operations, as well as 9 VAC 5 Chapter 50, Article 4: Standards of Performance for Stationary Sources. There is no applicable federal New Source Performance Standard (NSPS – 40 CFR 60) at this time for this process. The Maximum Achievable Control Technology (MACT) standard for wood furniture plants (40 CFR 63 Subpart JJ) does not apply to the woodworking materials and processes that are currently used at this plant.

### A. Limitations

1. Process Control - Woodworking Equipment: (Unit ID # ES-DD: Door Department; Unit ID # ES-FD: Framing Department; Unit ID # ES-BD: Building Department):  
No owner or other person shall cause or permit to be discharged any particulate emissions caused by any woodworking operation without providing, as a minimum, for their collection, adequate duct work and properly designed collectors, or other such devices, as approved by the board.

(9 VAC 5-80-110 and 9 VAC 5-40-2270 A)

2. Emission Limitations - Woodworking Equipment: (Unit ID # ES-DD: Door Department; Unit ID # ES-FD: Framing Department; Unit ID # ES-BD: Building Department):  
Particulate emissions from all wood dust control device exhausts shall not exceed the limits specified below:

Total Particulate	0.05 gr/dscf	19.67 lbs/hr	86.15 tons/yr
PM-10	0.05 gr/dscf	19.67 lbs/hr	86.15 tons/yr

(9 VAC 5-80-110 and 9 VAC 5-40-2270 B)

CWP's woodworking equipment is subject to existing stationary source standards contained in Virginia Regulations 9 VAC 5 Chapter 40 – Article 17: Emission Standards for Woodworking Operations, thus the corresponding allowable emission limitations contained in this existing source regulation apply. 9 VAC 5-40-2270 B states that "particulate emissions shall not exceed 0.05 grains per dry standard cubic foot of exhaust gas." Given the baghouse design airflow of 45,900 cu. ft./minute, the corresponding lb/hr and ton/yr allowable emissions from the control is calculated by the following:



For pound per hour:

$$\frac{0.05 \text{ gr}}{\text{dscf}} \times \frac{45,900 \text{ ft}^3}{\text{min.}} \div \frac{1 \text{ lb.}}{7,000 \text{ gr.}} \times \frac{60 \text{ min.}}{\text{hr.}} = \mathbf{19.67 \text{ lb/hr}}$$

For tons per year:

$$\frac{19.67 \text{ lb.}}{\text{hr.}} \times \frac{8760 \text{ hrs.}}{\text{yr.}} \div \frac{1 \text{ ton}}{2,000 \text{ lbs.}} = \mathbf{86.15 \text{ tons/yr}}$$

3. Visible Emission Limitations - Woodworking Equipment: (Unit ID # **ES-DD: Door Department**; Unit ID # **ES-FD: Framing Department**; Unit ID # **ES-BD: Building Department**): No owner or other person shall cause or permit to be discharged into the atmosphere from any wood dust emission point any visible emissions which exhibit greater than twenty percent (20%) opacity, except for one six-minute period in any one hour of not more than thirty percent (30%) opacity.  
(9 VAC 5-80-110 and 9 VAC 5-50-80)

#### **Monitoring/O & M/Recordkeeping:**

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the periodic monitoring requirements for this equipment group. The monitoring and records include:

1. Visible emissions periodic monitoring is required to assure control equipment maintenance and compliance with permit visible emission limits. This requires a weekly observation, and its recording, of each emission point in this emissions group to check for any visible emission. If any visible emission is observed, the condition shall be corrected and recorded, or a 40 CFR 60 Appendix A Method 9 visible emission evaluation performed and recorded to check opacity compliance. This requirement is to assure good control of particulate emissions. Reference 9 VAC 5-80-110 E.
2. The pressure drop across the baghouse shall be continuously measured and recorded weekly. This requirement is to help assure good control of particulate emissions.
3. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the fabric filters, and maintain records of inspection results.
4. Develop a maintenance schedule and maintain records of maintenance, have written operating procedures available, train operators in the proper operation of the equipment and controls affecting emissions, and maintain an inventory of spare parts needed to maintain the fabric filters in proper working order to minimize emissions.

5. Title V periodic monitoring to assure meeting the particulate emission limit of 0.05 grains/scf of exhaust gas TSP and PM-10 is satisfied by the periodic monitoring that assures good baghouse operation and maintenance, periodic inspections and recordkeeping, and periodic visible emission observations to assure that the opacity requirements are met (normally zero opacity). The particulate lb/hr limits are met as long as the grains/scf limits are met and the air handling system capacity (number of baghouses) is not increased. The particulate tons/yr limits are met as long as the lbs/hr limits are met and the plant wood throughput limits are met.

**Testing:** The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Method 5, or DEQ approved method.
Visible Emission	EPA Method 9

**Reporting:** Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each **March 1** and **September 1** respectively.

#### **EMISSION UNIT APPLICABLE REQUIREMENTS - Finishing**

This group includes all finishing at the Aerial Way facility and includes all finishing-related volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions. Most finishes are applied in spray booths with VOC-based wood furniture coatings.

The above-referenced finishing equipment is considered both “existing” and “new/modified” under Virginia Regulations. CWP’s finishing equipment, that is, equipment constructed prior to March 17, 1972, is subject to existing stationary source standards contained in Virginia Regulations 9 VAC 5 Chapter 40 – Existing Stationary Sources. CWP’s new/ modified sources, namely ES222C and ES232, are subject to standards contained in Virginia Regulations 9 VAC 5 Chapter 50 – New and Modified Stationary Sources and the NSR Permit dated August 28, 2002.

There are no applicable federal New Source Performance Standards (NSPS – 40 CFR 60) at this time for finishing. The Maximum Achievable Control Technology (MACT) standard for wood furniture plants (40 CFR 63 Subpart JJ) applies to the finishing operations portion of the facility as an existing source before the December 7, 1995 MACT applicability date. The plant’s primary method for meeting the federal standard is to maintain an average coating ratio of HAPs/Solids of less than 1.0 lb VHAP/ lb solids.

**Limitations – Existing Equipment**

1. Emission Controls – Finishing – Existing Equipment: Each finishing spray booth currently operating with overspray particulate controls (dry filters at a minimum) (Unit ID #ES220A, #ES223, #ES225, #ES227, #ES228, #ES229, #ES230 and #ES231) shall be provided with adequate access for inspection and maintained by the permittee such that they are in proper working order.  
(9 VAC 5-80-110)
2. Visible Emission Limitations – Finishing – Existing Equipment: Unless otherwise specified in this permit, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 60% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.  
(9 VAC 5-80-110 and 9 VAC 5-40-80)

**Limitations – New/Modified Equipment** (Unit ID # ES222C: Custom Built 7' 6" x 16' Basecoat/Stain Booth and Unit ID # ES232: Custom Built 7' 6" x 10' Topcoat/Basecoat Booth)

1. Emission Controls – Finishing – New/Modified Sources: PM-10 emissions from the 7' 6" x 16' Basecoat/Stain Booth and 7' 6" x 10' Touch-up Booth (Units #ES222C and #ES232) shall be controlled by dry overspray filters. The dry overspray filters shall be provided with adequate access for inspection and shall be in operation when the spray booths are operating.  
(9 VAC 5-80-110, 9 VAC 5-50-260 and NSR Permit dated 8/28/02 - Condition #3)
2. Emission Limit - Finishing – New/Modified Sources: Emissions from the operation of the 7' 6" x 16' Basecoat/Stain Booth and 7' 6" x 10' Touch-up Booth (Units #ES222C and #ES232) shall not exceed the limits specified below:

PM-10	0.61 tons/yr
Volatile Organic Compounds	34.10 tons/yr

Compliance with these emission limits may be determined as stated in Title V Condition Numbers V.A.1, V.B.2, and through the monthly actual emission calculations required by Title V Condition V.B.6.

(9 VAC 5-80-110, 9 VAC 5-50-260, 9 VAC 5-50-180 and NSR Permit dated 8/28/02 - Condition #6)

3. Visible Emission Limits – Finishing – New/Modified Sources: Visible emissions from the spray booth exhaust stacks (Units #ES222C and #ES232 – Stack #SN2221 and #SN232) shall not exceed five percent (5%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).

(9 VAC 5-80-110, 9 VAC 5-50-80, 9 VAC 5-50-260 and NSR Permit dated 8/28/02 - Condition #7)

#### **Monitoring/O & M/Recordkeeping:**

The permit includes requirements for monitoring and maintaining records of all monitoring and testing required by the permit. The inspections, maintenance, monitoring and recordkeeping requirements in this section, plus monitoring and recordkeeping under the Facility Wide and General Conditions Sections below, constitute the **periodic monitoring** requirements for this equipment group. The monitoring and records include:

1. Visible emissions periodic monitoring is required to assure control equipment maintenance and compliance with permit visible emission limits. This requires a weekly observation, and its recording, of each operating emission point in this emissions group to check for any visible emission. If any visible emission is observed, the condition shall be corrected and recorded, or a 40 CFR 60 Appendix A Method 9 visible emission evaluation performed and recorded to check opacity compliance. This requirement is to assure good control of overspray particulates, according to 9 VAC 5-80-110 E.
2. Develop an inspection schedule, monthly at a minimum, to insure the operational integrity of the overspray collectors and maintain records of inspection results.
3. Develop a maintenance schedule and maintain records of maintenance, have written operating procedures available, train operators in the proper operation of the equipment, and maintain an inventory of spare parts needed to maintain the overspray collectors in proper working order to minimize emissions.
4. At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.  
(9 VAC 5-40-20 F)
5. The permittee shall maintain records of all *finishing* emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, West Central Regional Office. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.  
(9 VAC 5-80-110, and 9 VAC 5-40-50)

**Testing:** The permit does not require source tests for this process. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

<b>Pollutant</b>	<b>Test Method - Subject to DEQ approval at the time of the test (except for Method 9). (40 CFR Part 60, Appendix A)</b>
Visible Emissions	EPA Method 9
VOC	40 CFR 63 Subpart JJ Wood Furniture MACT Certified Product Data Sheets, 40 CFR 60 Appendix A method 24, or DEQ approved equivalent.

**Reporting:** Title V semi-annual reports of the results of monitoring and recordkeeping for each first and second half calendar year are required to be submitted to DEQ by each March 1 and September 1 respectively.

**EMISSION UNIT APPLICABLE REQUIREMENTS - Facility Wide Conditions.  
40 CFR 63 Subpart JJ (Wood Furniture MACT).**

The wood furniture manufacturing MACT standard is applicable to this plant, and is subject to MACT requirements for existing sources that emitted less than 50 TPY of HAPs in 1996. The mandatory compliance date for such existing sources was December 7, 1998, with the facility found to be in compliance with the Subpart's requirements. This Title V permit contains the MACT requirements for informational purposes under the section on facility wide conditions. For the materials and processes currently utilized at this plant, the principal portion of the MACT that is applicable to this facility concerns the VHAPS in much of finishing. The plant's principal way of meeting the MACT requirements is to normally use only MACT compliant coatings. Please see the Compliance Section above for more details on the methods of compliance used by CWP.

**MACT Reporting:** Title V semi-annual reports of MACT compliance for each first and second half calendar year are required to be submitted to EPA submitted no later than **March 1** and **September 1** of each calendar year to coincide with Title V reporting, at request of the source. (Compliance dates of July 31 and January 31 of each calendar year respectively, are required by 40 CFR 63.807(c)(2).)

## **STREAMLINED REQUIREMENTS**

Existing Source Opacity Regulations: The startup, shutdown, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally-approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shutdown will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that *“At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions.”*

NSR Permit Conditions: Condition #12 of the 8/28/02 NSR permit requires notification during several milestones of the modification permitted. The modification activities have been completed with the notifications supplied in a satisfactory manner. Condition #15 invalidates the permit if the modification is not completed in a timely manner. The modification was completed in a timely manner. Both conditions are now obsolete as applicable requirements.

## **GENERAL CONDITIONS**

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110, that apply to all Federal operating permit sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or excess emissions, including those caused by upsets, within four daytime business hours.

## **STATE ONLY APPLICABLE REQUIREMENTS**

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as not applicable by the applicant:

- 9 VAC 5 Chapter 40 – Part II, Article 2: Standards for Odor

## **FUTURE APPLICABLE REQUIREMENTS**

No future applicable requirements have been identified for Custom Wood Products, LLC.

## **INAPPLICABLE REQUIREMENTS**

The allowable PM standard for finishing operations as covered by 9 VAC 5 Chapter 40 – Part II, Article 4: Emission Standards for General Process Operations does not apply in this case. Given the plant's ability to spray 120 cabinets per shift, the maximum amount of coating that could be sprayed in the plant's 10 booths is considered to be 576,189 lbs/yr, which equates to an hourly process weight rate of 65.78 lb/hr. According to 9 VAC 5-40-240 C, process operations with a process weight rate capacity of less than 100 pounds per hour are exempt from the provisions of this article.

9 VAC 5 Chapter 40 – Part II, Article 3: Existing source regulations for Emission Standards for Toxic Pollutants and the new/modified source regulations for toxics found in 9 VAC 5 Chapter 50 – Part II, Article 3 do not apply to CWP because the Aerial Way facility is subject to an applicable MACT standard. Effective May 1, 2002, if a source has an applicable promulgated MACT, then the source is considered exempt from Virginia state toxics regulations.

### **OPACITY REGULATION OMISSION:**

The startup, shut down, and malfunction opacity exclusion listed in 9 VAC 5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met.

Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9 VAC 5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

## **COMPLIANCE PLAN**

Custom Wood Products, LLC (CWP) entered into a Special Order by Consent with DEQ on December 20, 2001. In order to make these consent order conditions federally enforceable, they need to be included in CWP's Title V Permit. The conditions outline steps taken by CWP to implement Pollution Prevention (P2) techniques in their everyday operations, as part of a Supplemental Environmental Program (SEP).

### **Implementation Plan: P2/SEP Project I**

Upgrade the existing high volume low-pressure (HVLP) spray gun systems with new air-assisted airless (hydraulically assisted HVLP) spray gun systems. The estimated transfer efficiency of each upgraded system then increases from 30% to 60%. Custom Wood Products, LLC replaced four (4) systems at its Aerial Way Drive plant. These systems, which serve multiple spray booths, have the potential to reduce emissions from the following units/stacks:

Booth	Unit Reference #	Stack Reference #
Basecoat/Stain	ES222	SN2221 & SN2222
Basecoat	ES223	SN223
Topcoat/Basecoat	ES225	SN225
Topcoat (touch-up)	ES227	SN227
Topcoat	ES228	SN228
Topcoat	ES229	SN229
Offline Basecoat/Topcoat	ES231	SN231

Each air assisted airless system includes a piston pump which is to be wall mounted with a ceramic plunger and hardened stainless steel wetted parts, a siphon hose assembly, (2) downstream H.P. stainless steel regulators, (2) air assist guns, (2) gun filters, (2) 15 ft. air and fluid hoses and a back pressure regulator. This project (P2/SEP Project I) was completed by June 30, 2002.

**Implementation Plan: P2/SEP Project II**

Replace the unfiltered blow off booth (#ES224) with a new self-contained filtered unit. The existing blow off booth vents PM directly to the atmosphere. The new unit filters PM from the air and recycles clean air back into the building. This project (P2/SEP Project II) was completed prior to June 30, 2002.

**Implementation Plan: P2/SEP Project III**

Upgrade the existing plant compressor with a new, more energy efficient model. The new compressor is expected to be a 75 HP variable load unit, which has an efficiency rating of 94%. Due to its variable load capability, the new unit will be able to save energy by scaling back from the maximum load when the plant's required load drops below 75 HP. The old compressor will be maintained as a backup unit; the new compressor will be installed by October 31, 2002.

**Implementation Plan: SEP Project IV**

Replace existing unfiltered spray booths (one single-wide (ES#221B) and/or one double-wide booth (ES#222B)) that vent PM directly to the atmosphere with new paint booths that have built-in fabric filter control devices. To date, filters have been installed in Booth #ES222B in order to meet the company's financial obligation under the terms of the consent order, as per the quarterly progress report. CWP is not required to provide filters in Booth #ES221B, as they have met their financial obligation under the consent order.



### INSIGNIFICANT EMISSION UNITS

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
N/A	22 HVAC/Air Make-up units fired with natural gas	9 VAC 5-80-720 A		Less than 10 MMBtu/hr each

These insignificant emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

### CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

### PUBLIC PARTICIPATION

A public notice regarding the draft permit was published in the June 16, 2002 edition of the *Roanoke Times*. The public comment period extended from June 17, 2002 through July 18, 2002. No comments were received during this public comment period; either from EPA or other entities.

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***MODIFICATION1: EPA Review began on October 24, 2002 and ended on December 9, 2002, with no comments received.***

***MODIFICATION2: EPA Review began on November 30, 2005 and ended on January 17, 2006, with no comments received.***